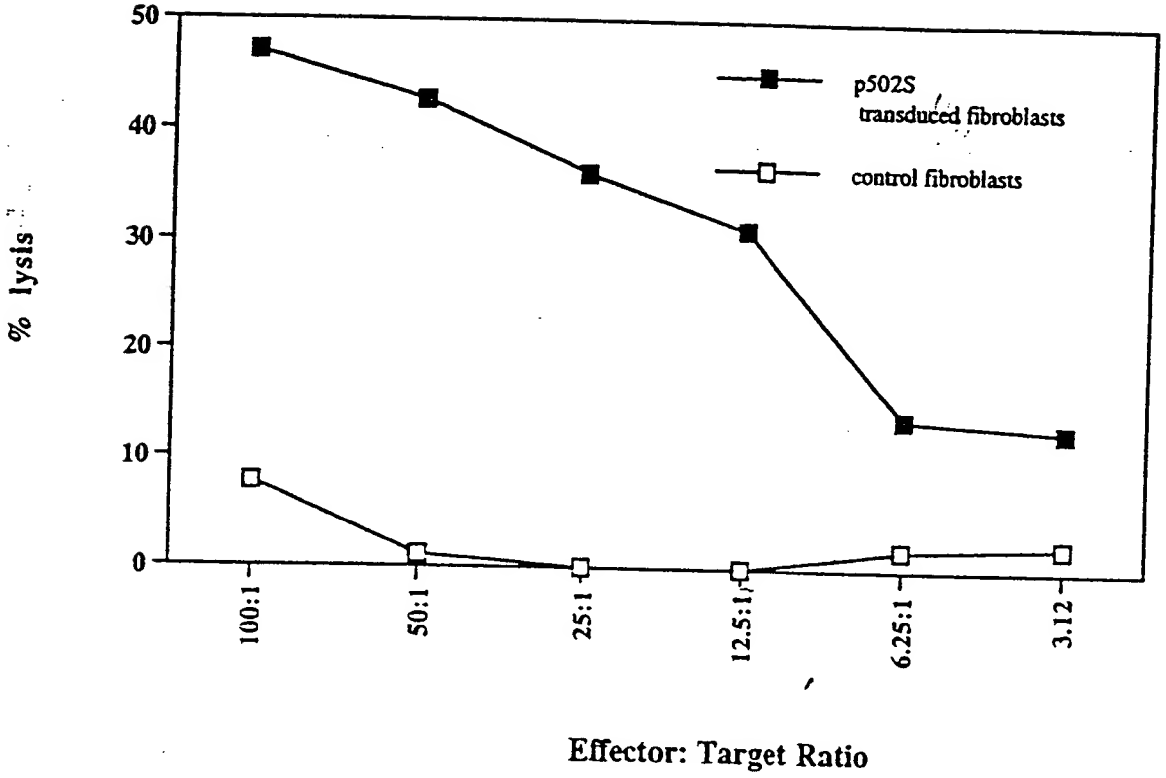

50
40
30
20
10
0
% lysis
p502S
transduced fibroblasts
control fibroblasts
100:1
50:1
25:1
12.5:1
6.25:1
3.12
Effector: Target Ratio

FIG. 1

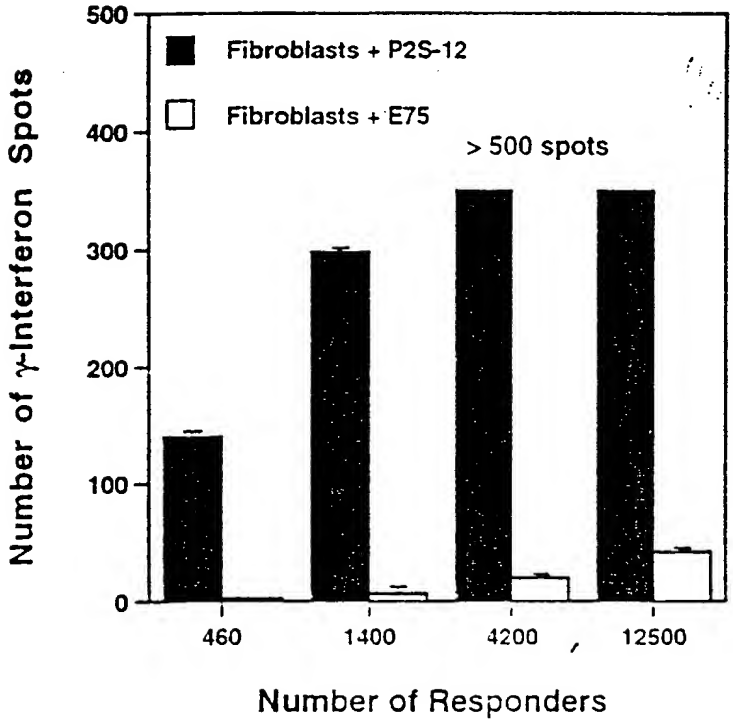

500
400
300
200
100
0
Number of γ-Interferon Spots
Fibroblasts + P2S-12
Fibroblasts + E75
> 500 spots
460
1400
4200
12500
Number of Responders

FIG. 2A

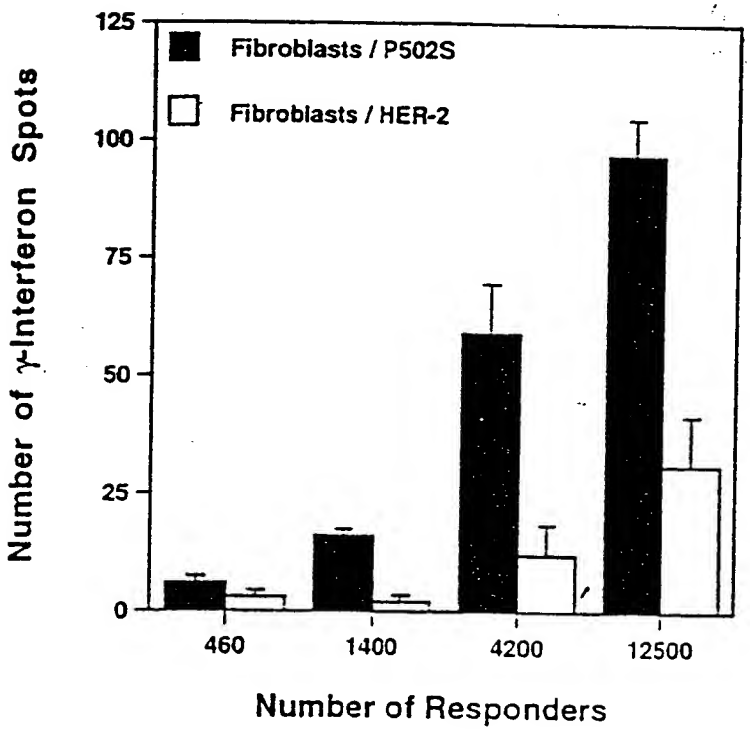

125
100
75
50
25
0
Fibroblasts / P502S
Fibroblasts / HER-2
Number of γ-Interferon Spots
460
1400
4200
12500
Number of Responders

FIG. 2B

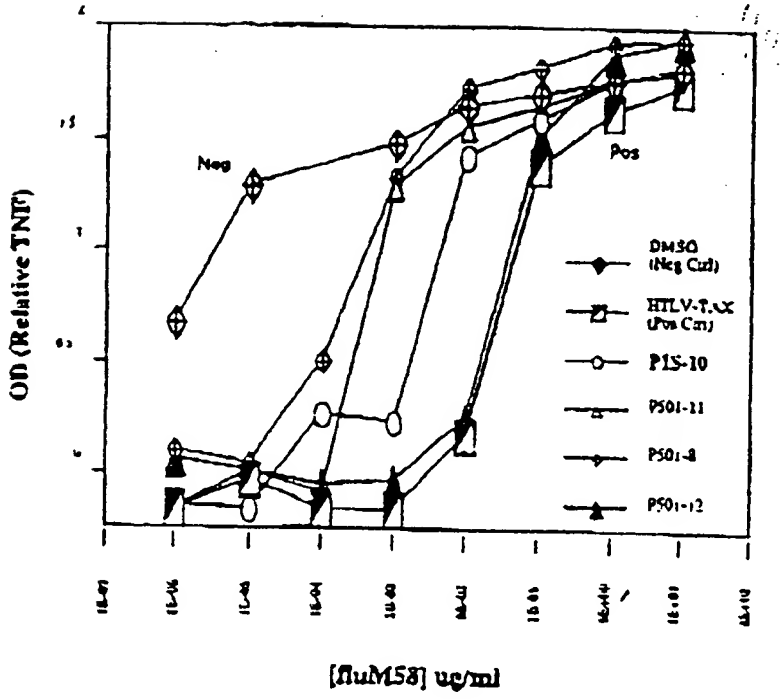

OD (Relative TNF)
Neg
Pos
DMSO
(Neg Ctrl)
HTLV-T.xx
(Pos Ctrl)
P1S-10
P501-11
P501-8
P501-12

Figure 3

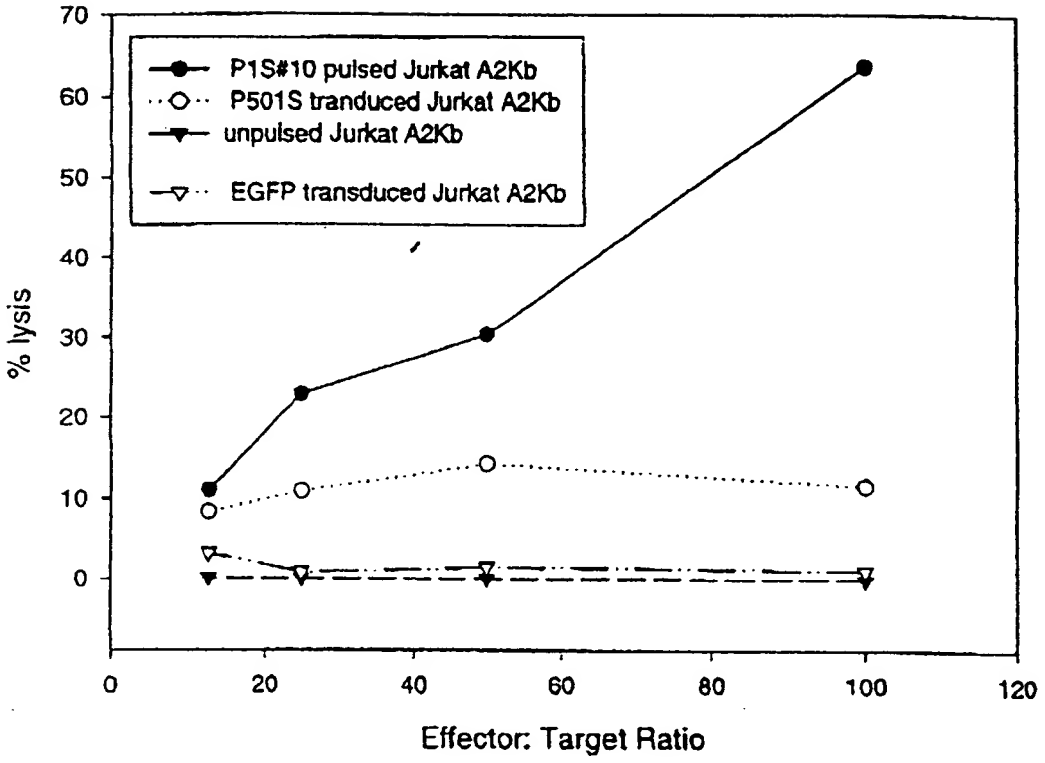

P1S#10 pulsed Jurkat A2Kb
P501S tranduced Jurkat A2Kb
unpulsed Jurkat A2Kb
EGFP transduced Jurkat A2Kb
% lysis
Effector: Target Ratio
0
10
20
30
40
50
60
70
0
20
40
60
80
100
120

Figure 4

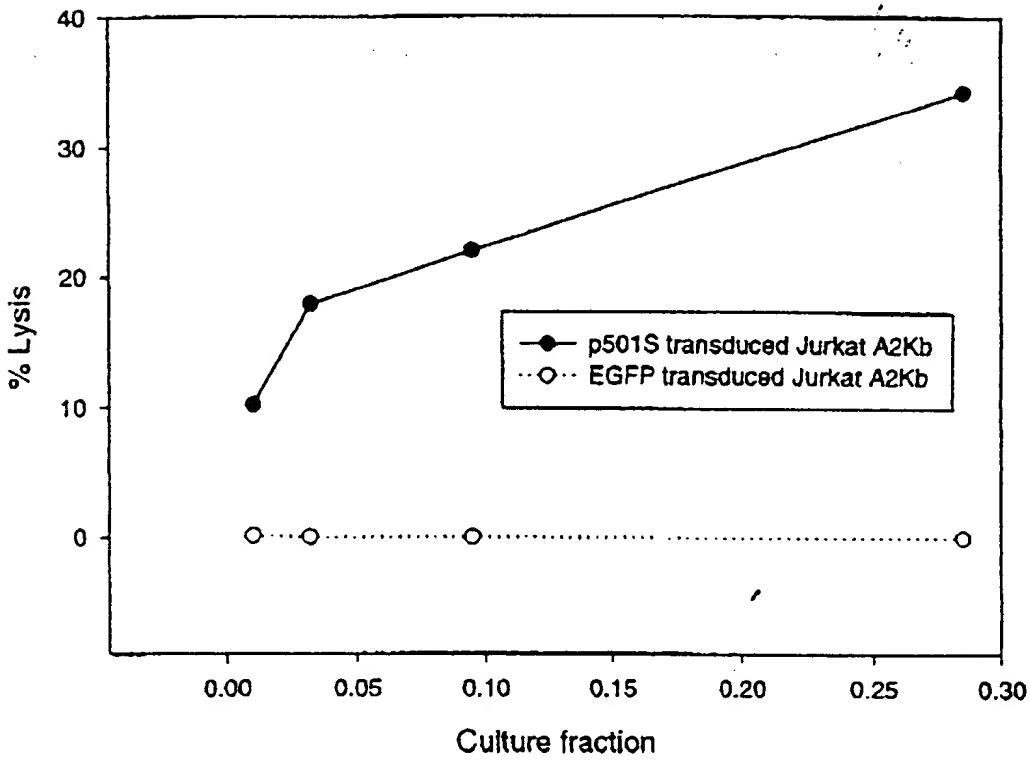

40
30
20
10
0
% Lysis
p501S transduced Jurkat A2Kb
EGFP transduced Jurkat A2Kb
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Culture fraction

Figure 5

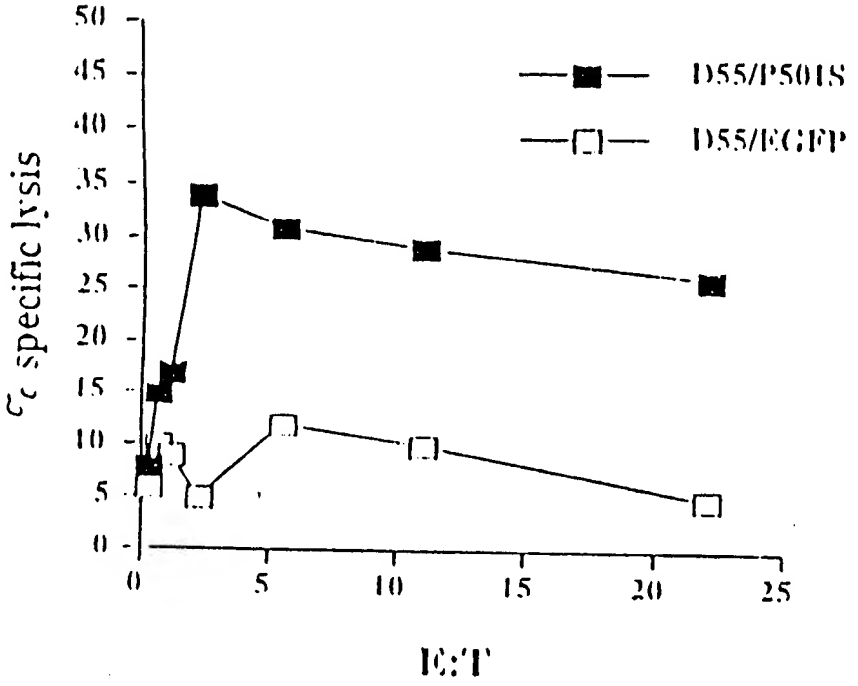


Fig. 6A

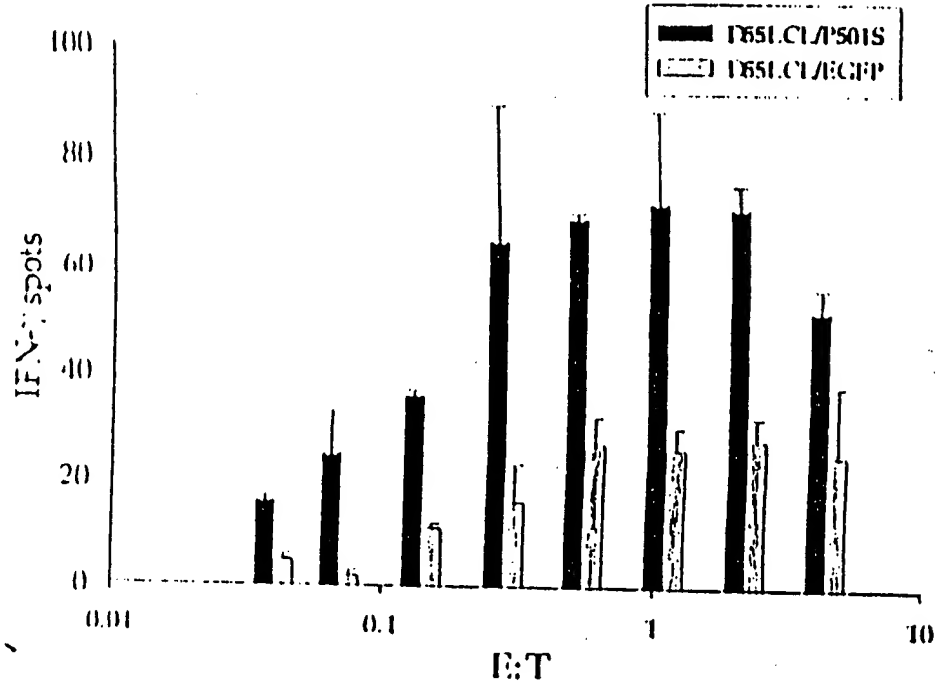
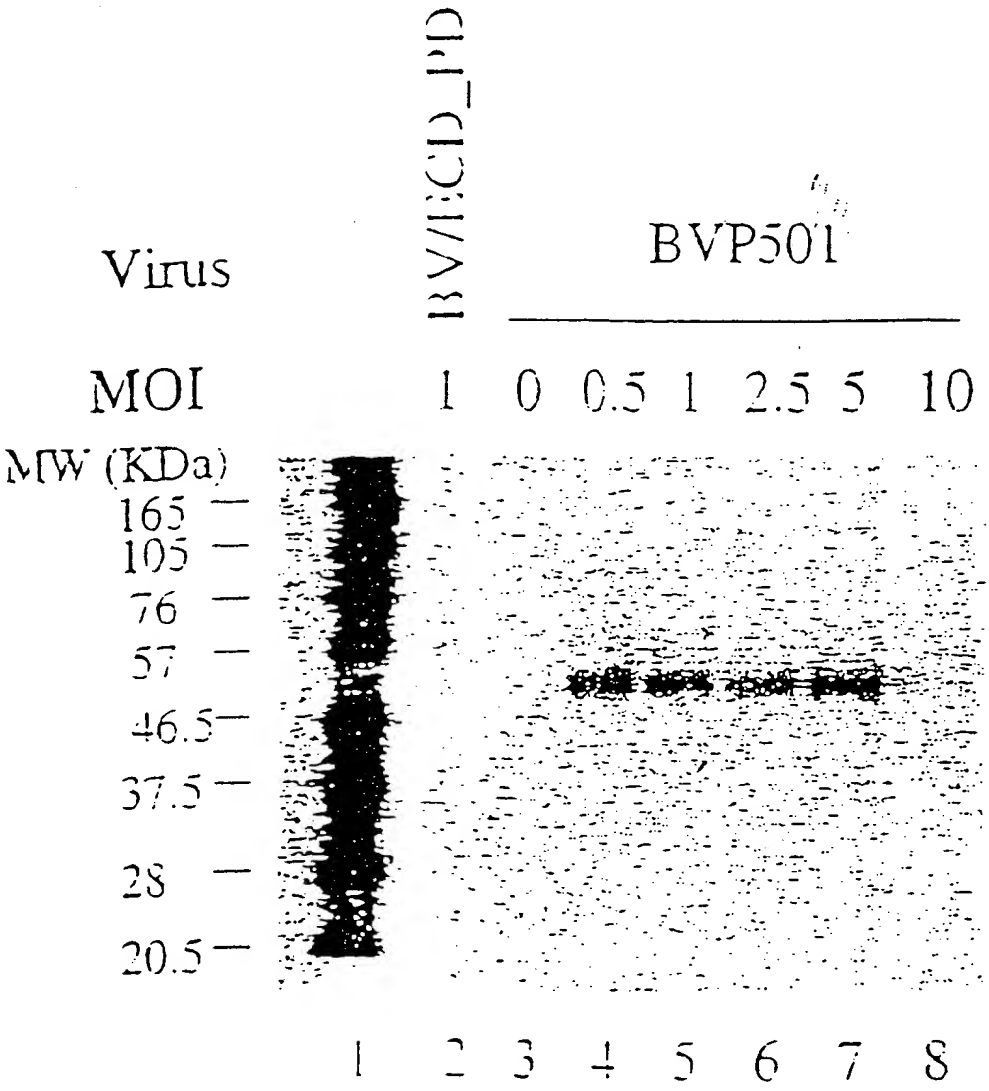


Fig. 6B

Expression of P501S
by the Baculovirus Expression System



0.6 million high [illegible] 6-well plate were infected with an unrelated control virus BV/ECD_PD [illegible] without virus (lane 3) or with recombinant baculovirus for P501 at different MOIs (lane 4 – 8). Cell lysates were run on SDS-PAGE under the reducing [illegible] and analyzed by Western blot with a monoclonal antibody against [illegible] P501S-10E5-G4D9. Lane 1 is the biotinylated protein molecular weight marker [illegible].

Fig. 7

Figure 8. Mapping of the epitope recognized by 10E3-G4-D3

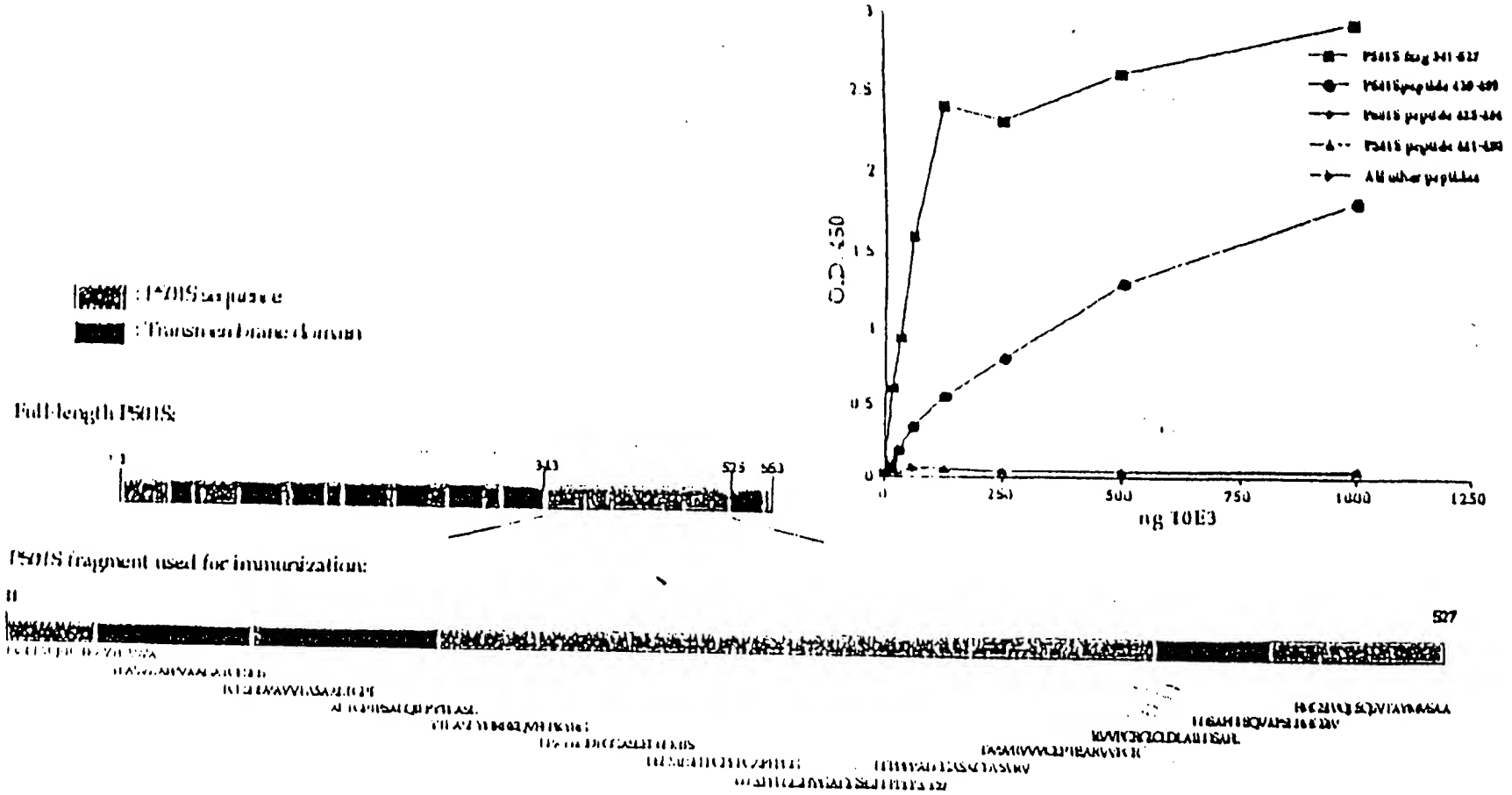


Fig. 8

Figure 1. Schematic of P501S with predicted transmembrane, cytoplasmic, and extracellular regions

MVQRLAVVSRLLRHRK AQLLLVNLLTFGLEVCLAAGIT YVPPLLLEVGVEEKFM TMVLGIGPVLGLVCVPLLGSAS

DHWRGRYGRRRP EIWALSLGILLSLFLIPRAGWL AGLLCPDPRPLE LALLILGVGLLDFCGQVCFTPL

FALLSDLFRDPDHCRQ AYSVYAFMISLGGCLGYLLPAI DWDTSALAPYLGTQEE

CLPGLETLIFLTCVAATLLV *AEEAALGPTEPAEGLSAPSLSPHCCPCRARLAFRNLGALLPRL*

HQLCCRAIPRTLRR LPVAFLCSWMALMTFTLFYTDP VGEGLYQGVPRAEPGTEARRHYDEGVR

MGSLGLFLQCAISLVFSLVM *DRLVQREGTRAVYLAS* VAAFPVAAGATCLSHSVAVVTA **SAA**

LTGETFSALQILPYTLASLY *HREKQVFLPKYRGDTGGASSEDSLMTSFLPGPKPGAPFPNGHVGAGGSGL*

LPPPPALCGASACDVSVRVVVGEPTEARVVPGRG ICLDLAILDSAFLLSQVAPSLF **MGSIVQLSQS**

VTAYMVSAAGLGLVALYFAT *QVVFDKSDLAKYSA*

Underlined sequence: Predicted transmembrane domain; **Bold sequence: Predicted extracellular domain;** *Italic sequence*: Predicted intracellular domain. Sequence in bold/underlined: used to generate polyclonal rabbit serum

Localization of domains predicted using HMMTOP (G.E. Tusnady and I. Simon (1998) Principles Governing Amino Acid Composition of Integral Membrane Proteins: Applications to topology Prediction.J.Mol Biol. 283, 489-506.

Fig. 9

Genomic Map of (5) Corixa Candidate Genes

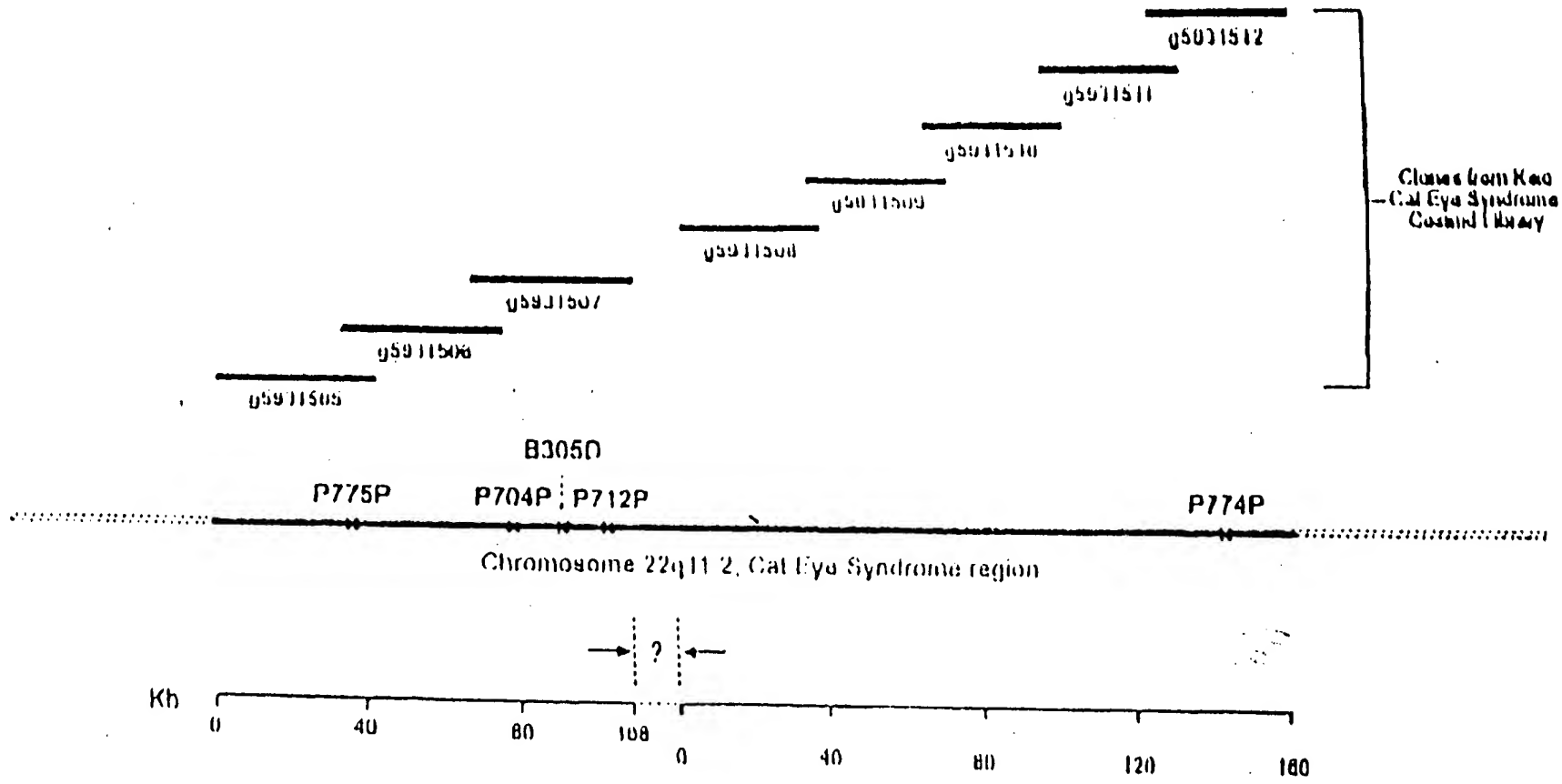


Fig. 10

FIGURE 4. Elisa assay of rabbit polyclonal antibody specificity

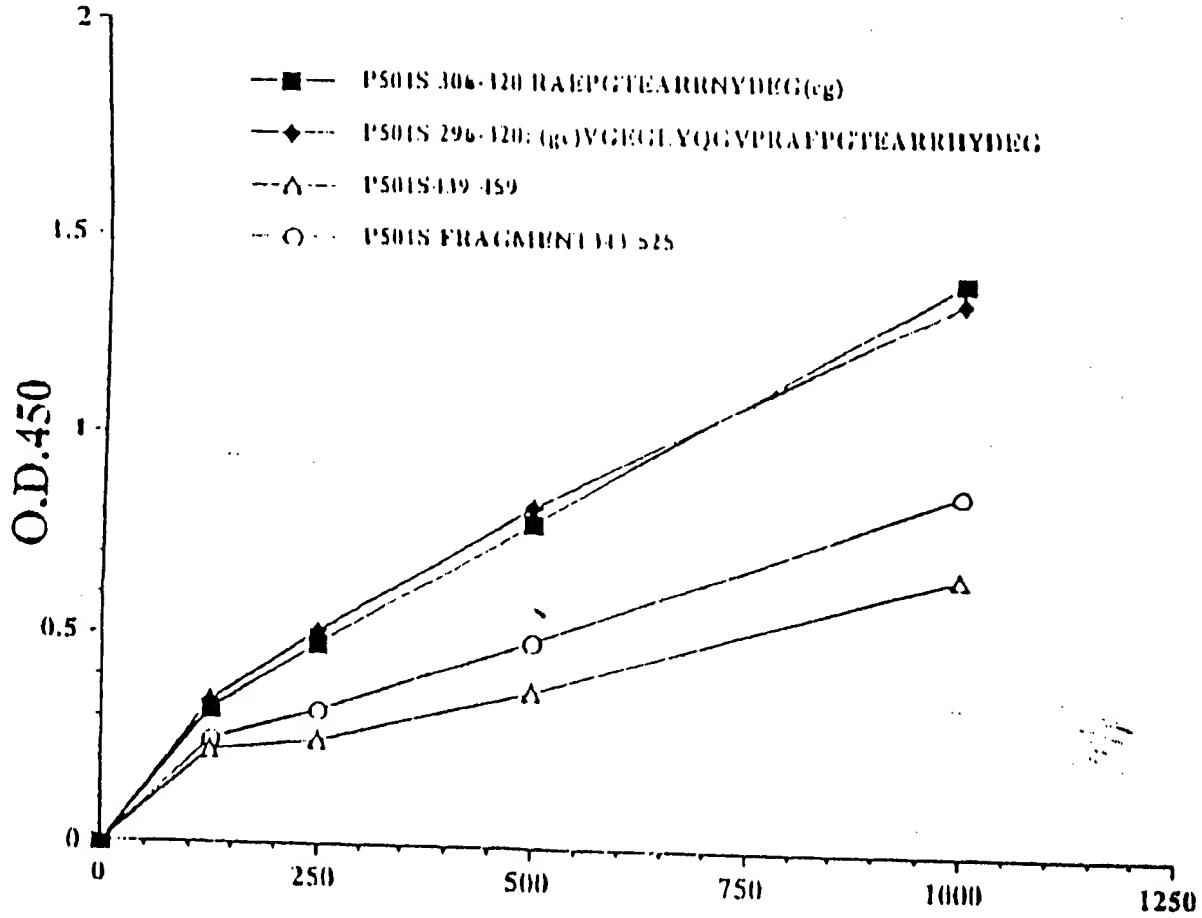
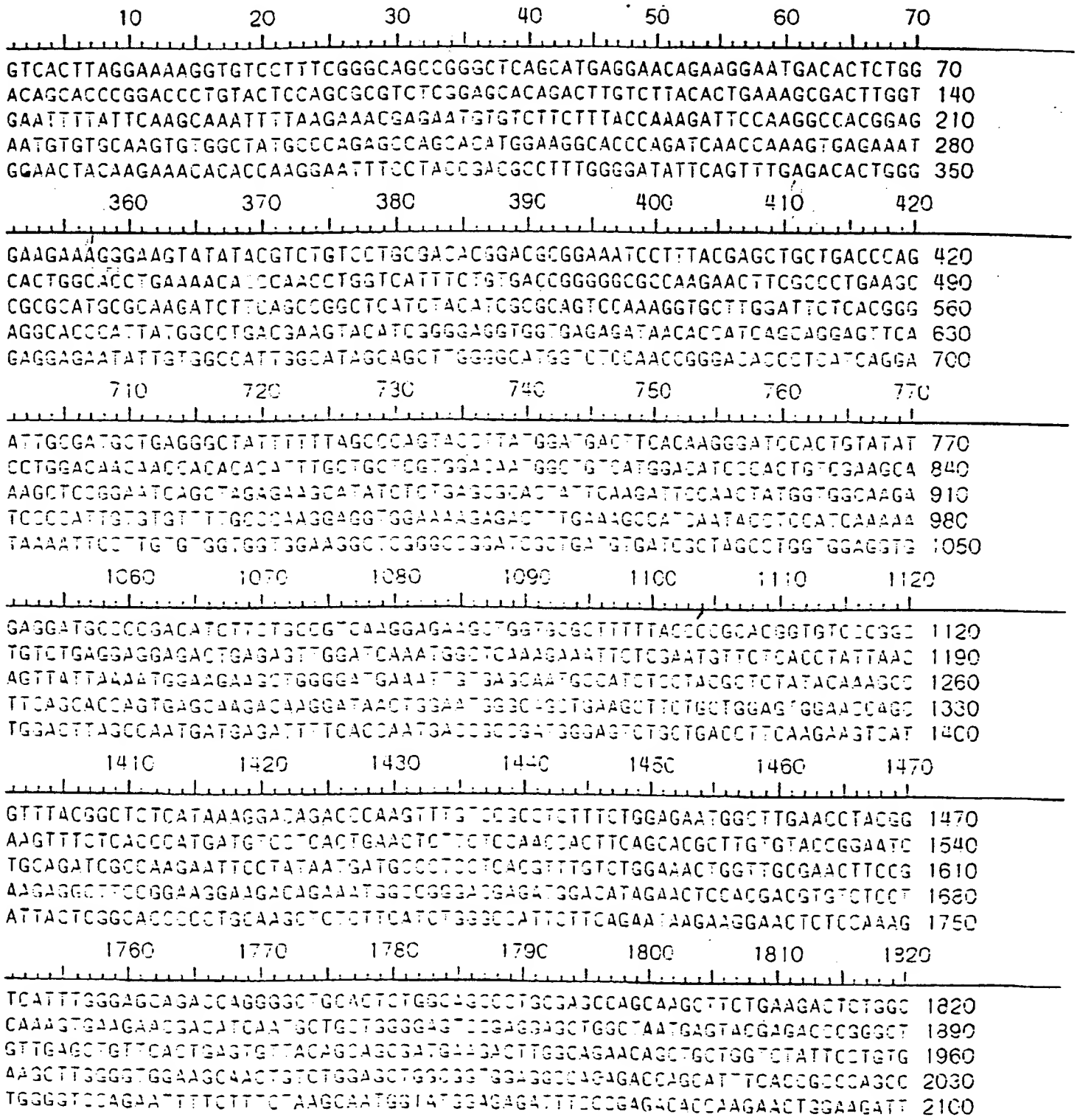


Fig. 11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GAATTTTATTCAAGCAAATTTTAAGAAACGAGAATGTGTCTTCTTTACCAAAGATTCCAAGGCCACGGAG 210
AATGTGTGCAAGTGTGGCTATGCCCAGAGCCAGCACATGGAAGGCACCCAGATCAACCAAAGTGAGAAAT 280
GGAACTACAAGAAACACACCAAGGAATTTCCTACCGACGCCTTTGGGGATATTCAGTTTGAGACACTGGG 350
360 370 380 390 400 410 420
GAAGAAAGGGAAGTATATACGTCTGTCCTGCGACACGGACGCGGAAATCCTTTACGAGCTGCTGACCCAG 420
CACTGGCACCTGAAAACA CCAACCTGGTCATTTCTGTGACCGGGGGCGCCAAGAACTTCGCCCTGAAGC 490
CGCGCATGCGCAAGATCTTCAGCCGGCTCATCTACATCGCGCAGTCCAAAGGTGCTTGGATTCTCACGGG 560
AGGCACCCATTATGGCCTGACGAAGTACATCGGGGAGGTGGTGAGAGATAACACCATCAGCAGGAGTTCA 630
GAGGAGAATATTGTGGCCATTGGCATAGCAGCTTGGGGCATGGTCTCCAACCGGGACACCCTCATCAGGA 700
710 720 730 740 750 760 770
ATTGCGATGCTGAGGGCTATTTTTTAGCCCAGTACCTTATGGATGACTTCACAAGGGATCCACTGTATAT 770
CCTGGACAACAACCACACACATTTGCTGCTGGTGGACAATGGCTGTCATGGACATCCCACTGTCGAAGCA 840
AAGCTCCGGAATCAGCTAGAGAAGCATATCTCTGAGCGCACTATTCAAGATTCCAACTATGGTGGCAAGA 910
TCCCCATTGTGTGTTTTGCCCAAGGAGGTGGAAAAGAGACTTGAAGCCATCAATACCTCCATCAAAAA 980
TAAAATTCCTTGTGTGGTGGTGGAAGGCTCGGGCCGGATCGCTGATGTGATCGCTAGCCTGGTGGAGGTG 1050
1060 1070 1080 1090 1100 1110 1120
GAGGATGCCCCGACATCTTCTGCCGTCAAGGAGAAGCTGGTGCGCTTTTTACCCCGCACGGTGTCCCGGC 1120
TGTCTGAGGAGGAGACTGAGAGTTGGATCAAATGGCTCAAAGAAATTCTCGAATGTTCTCACCTATTAAC 1190
AGTTATTAAAATGGAAGAAGCTGGGGATGAAATTGTGAGCAATGCCATCTCCTACGCTCTATACAAAGCC 1260
TTCAGCACCAGTGAGCAAGACAAGGATAACTGGAATGGGCAGCTGAAGCTTCTGCTGGAGTGGAACCAGC 1330
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1410 1420 1430 1440 1450 1460 1470
GTTTACGGCTCTCATAAAGGACAGACCCAAGTTTGTCCGCCTCTTTCTGGAGAATGGCTTGAACCTACGG 1470
AAGTTTCTCACCCATGATGTCCTCACTGAACTCTTCTCCAAGCACTTCAGCACGCTTGTGTACCGGAATC 1540
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1760 1770 1780 1790 1800 1810 1820
TCATTTGGGAGCAGACCAGGGGCTGCACTCTGGCAGCCCTGCGAGCCAGCAAGCTTCTGAAGACTCTGGC 1820
CAAAGTGAAGAACGACATCAATGCTGCTGGGGAGTCCGAGGAGCTGGCTAATGAGTACGAGACCCGGGCT 1890
GTTGAGCTGTTCACTGAGTGTTACAGCAGCGATGAAGACTTGGCAGAACAGCTGCTGGTCTATTCCTGTG 1960
AAGCTTGGGGTGGAAGCAACTGTCTGGAGCTGGCGGTGGAGGCCAGAGACCAGCATTTCACCGCCCAGCC 2030
TGGGGTCCAGAATTTTCTTTCTAAGCAATGGTATGGAGAGATTTCCCGAGACACCAAGAACTGGAAGATT 2100

Fig. 12A (1)


2110 2120 2130 2140 2150 2160 2170
TCCTGTGTCTGTTTATTATACCCTTGGTGGGCTGTGGCTTTGTATCATTTAGGAAGAAACCTGTCGACA 2170
AGCACAAGAAGCTGCTTTGGTACTATGTGGCGTTCTTCACCTCCCCCTTCGTGGTCTTCTCCTGGAATGT 2240
GGTCTTCTACATCGCCTTCCTCCTGCTGTTGCCTACGTGCTGCTCATGGATTTCCATTCGGTGCCACAC 2310
CCCCCCGAGCTGCTCCTGTACTCCCTGGCTTTGTCCTCTTCTGTGATGAAGTCAGACAGTGGTACGTAA 2380
ATGGGGTGAATTATTTTACTGACCTGTGGAATGTGATGGACACGCTGGGGCTTTTTTACTTCATAGCAGG 2450
2460 2470 2480 2490 2500 2510 2520
AATTGTATTTCGGCTCCACTCTTCTAATAAAAGCTCTTTGTATTCTGGACGAGTCATTTTCTGTCTGGAC 2520
TACATTATTTTCACTCTAAGATTGATCCACATTTTTACTGTAAGCAGAAACTTAGGACCCAAGATTATAA 2590
TGCTGCAGAGGATGCTGATCGATGTGTTCTTCTTCCTGTTCCTCTTTGCGGTGTGGATGGTGGCCTTTGG 2660
CGTGGCCAGGCAAGGGATCCTTAGGCAGAATGAGCAGCGCTGGAGGTGGATATTCCGTTCGGTCATCTAC 2730
GAGCCCTACCTGGCCATGTTCGGCCAGGTGCCCAGTGACGTGGATGGTACCACGTATGACTTTGCCCACT 2800
2810 2820 2830 2840 2850 2860 2870
GCACCTTCACTGGGAATGAGTCCAAGCCACTGTGTGTGGAGCTGGATGAGCACAACCTGCCCCGGTTCCC 2870
CGAGTGGATCACCATCCCCCTGGTGTGCATCTACATGTTATCCACCAACATCCTGCTGGTCAACCTGCTG 2940
GTCGCCATGTTTGGCTACACGGTGGGCACCGTCCAGGAGAACAATGACCAGGTCTGGAAGTTCCAGAGGT 3010
ACTTCCTGGTGCAGGAGTACTGCAGCCGCTTCAATATCCCCTTCCCCTTCATCGTCTTCGCTTACTTCTA 3080
CATGGTGGTGAAGAAGTGCTTCAAGTGTTGCTGCAAGGAGAAAAACATGGAGTCTTCTGTCTGCTGTTTC 3150
3160 3170 3180 3190 3200 3210 3220
AAAAATGAAGACAATGAGACTCTGGCATGGGAGGGTGTCATGAAGGAAAACTACCTTGTCAAGATCAACA 3220
CAAAAGCCAACGACACCTCAGAGGAAATGAGGCATCGATTTAGACAACTGGATACAAAGCTTAATGATCT 3290
CAAGGGTCTTCTGAAAGAGATTGCTAATAAAATCAAATAAAACTGTATGAAACTCTAATGGAGAAAAATC 3360
TAATTATAGCAAGATCATATTAAGGAATGCTGATGAACAATTTTGCTATCGACTACTAAATGAGAGATTT 3430
TCAGACCCCTGGGTACATGGTGGATGATTTTAAATCACCCTAGTGTGCTGAGACCTTGAGAATAAAGTGT 3500
3510 3520 3530 3540 3550 3560 3570
GTGATTGGTTTCATACTTGAAGACGGATATAAAGGAAGAATATTTCCTTTATGTGTTTCTCCAGAATGGT 3570
GCCTGTTTCTCTCTGTCTCAATGCCTGGGACTGGAGGTTGATAGTTTAAGTGTGTTCTTACCGCCTCC 3640
TTTTTCCTTTAATCTTATTTTTGATGAACACATATATAGGAGAACATCTATCCTATGAATAAGAACCTGG 3710
TCATGCTTTACTCCTGTATTGTTATTTTGTTCATTTCCAATTGATTCTCTACTTTTCCCTTTTTTGTATT 3780
ATGTGACTAATTAGTTGGCATATTGTTAAAAGTCTCTCAAATTAGGCCAGATTCTAAAACATGCTGCAGC 3850
3860 3870 3880 3890 3900 3910 3920
AAGAGGACCCCGCTCTCTTCAGGAAAAGTGTTTTCATTCTCAGGATGCTTCTTACCTGTCAGAGGAGGT 3920
GACAAGGCAGTCTCTTGCTCTCTTGGACTCACCAGGCTCCTATTGAAGGAACCACCCCCATTCCTAAATA 3990
TGTGAAAAGTCGCCCAAAATGCAACCTTGAAAGGCACTACTGACTTTGTTCTTATTGGATACTCCTCTTA 4060
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4210 4220 4230 4240 4250 4260 4270
TTTTTTTCTATGTATGTCTCAATTCTCTTTCAAAATTTTACAGAATGTTATCATACTACATATATACTTT 4270
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TTGATCATTGGGATGAGCATCTTTGTGCATGAATCCTATTGCTGTATTTGGGAAAATTTTCCAAGGTTAC 4480
ATTCCAATAAATATCTATTTATTATTAATATTAAATATCGATTTATTATTAAAACCATTTATAAGGCT 4550

Fig. 12A(2)

4560 4570 4580 4590 4600 4610 4620

TTTTCATAAATGTATAGCAAATAGGAATTATTAACTTGAGCATAAGATATGAGA[redacted]CATGAACCTGAACT 4620
ATTAAAATAAAATATTATATTTAACCCTAGTTTAAGAAGAAGTCAATATGCTTATTTAAATATTATGGAT 4690
GGTGGGCAGATCACTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGGCAAAACCACATCTCTACT 4760
AAAAATAAAAAAATTAGCTGGGTGTGGTGGTGCACTCCTGTAATCCCAGCTACTCAGAAGGCTGAGGTAC 4830
AAGAATTGCTGGAACCTGGGAGGCGGAGGTTGCAGTGAACCAAGATTGCACCACTGCACTCCAGCCGGGG 4900

4910 4920 4930 4940 4950 4960 4970

TGACAGAGTGAGACTCCGACTGAAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATATTATGG 4970
ATGGTGAAGGGAATGGTATAGAATTGGAGAGATTATCTTACTGAACACCTGTAGTCCCAGCTTTCTCTGG 5040
AAGTGGTGGTATTTGAGCAGGATGTGCACAAGGCAATTGAAATGCCCATAATTAGTTTCTCAGCTTTGAA 5110
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5260 5270 5280 5290 5300 5310 5320

CATTCACTATGTTTGCAAGGAATTAACACAAATAAAAGATGCCTTTTTACTTAAACGCCAAGACAGAAAA 5320
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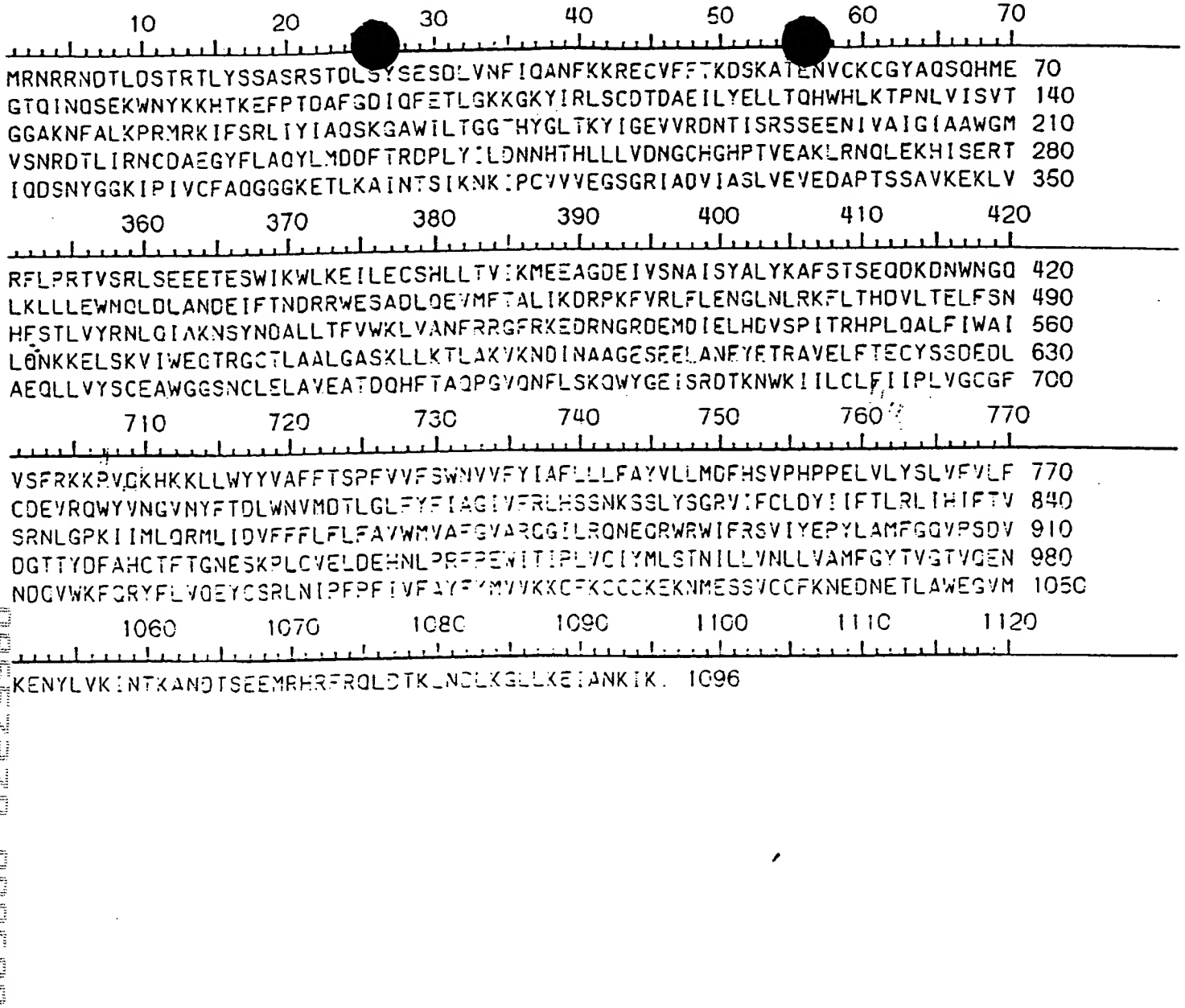
CTTTTGCACAACTGAGAATCCTGCGGCTTGGTTTAATGAGTGTGTTCATGAAATAAATAATGGAGGAATT 5600

5610 5620 5630 5640 5650 5660 5670

GTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 5668

Fig. 12A(3)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GGAKNFALKPRMRKIFSRLIYIAQSKGAWILTGGTHYGLTKYIGEVVRDNTISRSSEENIVAIGIAAWGM 210
VSNRDTLIRNCDAEGYFLAQYLMDDFTRDPLYILDNNHTHLLLVDNGCHGHPTVEAKLRNQLEKHISERT 280
IQDSNYGGKIPIVCFAQGGGKETLKAINTSIKNKIPCVVVEGSGRIADVIASLVEVEDAPTSSAVKEKLV 350
360 370 380 390 400 410 420
RFLPRTVSRLSEEETESWIKWLKEILECSHLLTVIKMEEAGDEIVSNAISYALYKAFSTSEQDKDNWNGQ 420
LKLLLEWNQLDLANDEIFTNDRRWESADLQEVMFTALIKDRPKFVRLFLENGLNLRKFLTHDVLTELFSN 490
HFSTLVYRNLQIAKNSYNDALLTFVWKLVANFRRGFRKEDRNGRDEMDIELHDVSPITRHPLQALFIWAI 560
LQNKKELSKVIWEQTRGQTLAALGASKLLKTLAKVKNDINAAGESEELANEYETRAVELFTECYSSDEDL 630
AEQLLVYSCEAWGGSNCLELAVEATDQHFTAQPGVQNFLSKQWYGEISRDTKNWKIILCLFIIPLVGCGF 700
710 720 730 740 750 760 770
VSFRKKPVQKHKKLLWYYVAFFTSPFVVFSWNVVFYIAFLLLFAYVLLMDFHSVPHPPELVLYSLVFVLF 770
CDEVRQWYVNGVNYFTDLWNVMDTLGLFYFIAGIVFRLHSSNKSSLYSGRVIFCLDYIIFTLRLIHIFTV 840
SRNLGPKIIMLQRMLIDVFFFLFLFAYWMVAFGVARGGILRQNEGRWRWIFRSVIYEPYLAMFGQVPSDV 910
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NDQVWKFQRYFLVQEYCSRLNIPFPFIVFAYFYMVVKKCFKCCCKEKNMESSVCCFKNEDNETLAWEGVM 1050
1060 1070 1080 1090 1100 1110 1120
KENYLVKINTKANDTSEEMRHRFRQLDTKLNDLKGLLKEIANKIK. 1096

Fig. 12B